

1 ABSTRACT OF THE DISCLOSURE

2 The present invention pertains to a more efficient system and method for forming
3 rectifying junction contacts in PIN alloy-semiconductor devices using photoelectrical and
4 chemical etching. The present invention provides a means of creating rectifying junction
5 contacts on alloy-semiconductor devices such as CdTe and CdZnTe, among others. In addition,
6 the present invention also provides a simple and low cost method for revealing wafer surface
7 morphology of alloy-semiconductors, thus providing an efficient and effective means for
8 selecting single grain semiconductor substrates. Further, the present invention provides
9 radiation detectors employing such alloy-semiconductor devices having improved rectifying
10 junctions as the detector element.